

Remarks

Claims 1-13 are pending in the application. Claims 1, 3 and 13 are rejected. Claims 2 and 4-12 are objected to. All rejections are respectfully traversed.

In paragraph 1, the Examiner objected to the Figures 1 and 3. Corrected drawing sheets are filed herewith.

In paragraph 2, the Examiner objected to claim 4. Claim 4 has been corrected.

Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Su et al. (US 6625161).

According the Su definition for traffic aggregate, defines “a continuous stream of packets are grouped as traffic aggregates.” In other words, a traffic aggregate is nothing more than a data stream or a stream of packets, sometime as also known as a data flow, or simply ‘traffic’ in the network. The fact that the traffic is continuous stream of packets discloses nothing about service classifications that are associated with the **content** of the traffic.

The present application makes it abundantly clear that various service classifications are well known in the field. “In the absence of quality-of-service (QoS) measures, **best-effort** service is the default behavior of packet-

switched networks. “The Internet Engineering Task Force (IETF) has defined **two major** architectures for augmenting best-effort service, namely, Integrated Services (IntServ), and Differentiated Services (DiffServ).” “DiffServ is an *IETF standard* ... **At least two service classes** have been defined under this effort, “*Assured Service*” and “*Preferred Service*.”

Applicants respectfully request that Examiner reads the additional background information, filed herewith, as a primer to ‘service classes’ as known in the art to obtain a better understanding of the invention, particularly an article entitled “Protocol Extension for Support of Asynchronous Transfer Mode (ATM) **Service Class-aware** Multiprotocol Label Switching (MPLS) Traffic Engineering,” emphasis supplied.

The application also provides the motivation why the industry has defined different service classes for different types of content in the traffic. “Best-effort service” is adequate for “general file transfers or e-mail” i.e., streams of packets where it does not matter whether the traffic arrives instantaneously or in minutes, or perhaps even hours or days later. However, “for *real-time* streaming applications, such as audio/video deliver, jitter is a concern,” there the streams of packets must use assured a high level of service to avoid jitter, or interrupted viewing.

In other words, to be able to provide different levels of service, the content of the traffic must be known - is it time-insensitive e-mail, or is it time-sensitive real-time video. Su does not make this distinction. Su knows nothing about the content of his traffic.

Nowhere, does Su disclose anything about service classes that can be provided for his stream of packets, and particularly not service classes as are known in the art, and as those defined by industry and IEEE standards.

The Applicants respectfully request the Examiner to provide support for his assertion that “a stream of packets” reads on “service classes.”

In Su, there is one queue for each stream of packets, see column 4, lines 34-39. In contrast, the invention has one queue for each service class.

Su measures queue lengths for communication channels.

“The process, in step 35, determines if average queue length measurement for each of the parallel **communication channels** indicates that resources for the **communication channels** are not being equally utilized, such that each **communication channel** has similar packet transfer delay.” “However, if the process in step 35 determines that the average queue length measurement indicates that resources for the **communication channels** are not being equally utilized then in step 31, the process reassigns future traffic aggregates to **another communication channel**.”

In other words, if a channel is over used, then traffic is assigned to another channel.

In contrast, the claimed invention allocates *bandwidth* according to *service classes* based on average queue length of *service class* related queues.

The Applicants are totally mystified, puzzled, confused, and perplexed what Su's switching of channels has to do with the claimed bandwidth allocation to **service classes**.

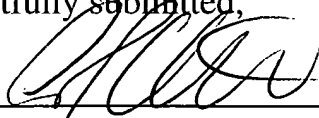
Claims 3 and 13 are rejected under 35 U.S.C. > 103(a) as being unpatentable over Su in view of Silberschatz (U.S. 6556578).

As stated above, Su is totally inapplicable to the present invention. Silberschatz cannot cure these defects.

All rejections have been complied with, and applicant respectfully submits that the application is now in condition for allowance. The applicant urges the Examiner to contact the applicant's attorney at phone and address indicated below if assistance is required to move the present application to allowance. Please charge any shortages in fees in connection with this filing to Deposit Account 50-0749.

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